

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
690 Walnut Ave.St. 150
Vallejo, CA 94592-1133
(707) 649-5453
(707) 649-5493

Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-004460**Date Inspected:** 31-Oct-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 630**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1530**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

| | | | | | | | |
|------------------------------------|-------------|-----------|------------|----------------------------------|-------------|-----------|------------|
| CWI Name: | Hu Wei Qing | | | CWI Present: | Yes | No | |
| Inspected CWI report: | Yes | No | N/A | Rod Oven in Use: | Yes | No | N/A |
| Electrode to specification: | Yes | No | N/A | Weld Procedures Followed: | Yes | No | N/A |
| Qualified Welders: | Yes | No | N/A | Verified Joint Fit-up: | Yes | No | N/A |
| Approved Drawings: | Yes | No | N/A | Approved WPS: | Yes | No | N/A |
| | | | | Delayed / Cancelled: | Yes | No | N/A |
| Bridge No: | 34-0006 | | | Component: | OBG & Tower | | |

Summary of Items Observed:

The Caltrans Quality Assurance (QA) Inspector Charlie Franco was present at the time requested to randomly observe welding and associated operations being performed for the Tower and Orthotropic Box Girders (OBG).

OBG Sub-Assembly Bay 7:

The QA Inspector randomly observed ZPMC welder Yang Geng Cheng ID 066418, utilizing the Shielded Metal Arc Welding (SMAW) Process in the 2F (Horizontal Fillet) Position with ZPMC Weld Procedure Specification (WPS) WPS-B-P-2112, to tack weld stiffeners on Floor Beam Wing Diaphragm FB012-012 at Weld Joint (WJ) Numbers 013/014. The QA Inspector randomly observed ZPMC QC under the supervision of ZPMC CWI Hu Wei Qing, monitoring weld parameters. The weld parameters appeared to comply with contract requirements.on Floor Beam Wing Diaphragm FB012-012.

The QA Inspector randomly observed ZPMC welders Hu Fen Jian ID 067877 and Wang Hong Lei ID 066687, utilizing the SMAW Process in the 2F (Horizontal Fillet) Position with trackers and ZPMC WPS WPS-B-P-2112, to weld stiffeners on Floor Beam Wing Diaphragm FB012-013 at WJ's 015/016. The QA Inspector randomly observed ZPMC QC under the supervision of ZPMC CWI Hu Wei Qing, monitoring weld parameters. The weld parameters appeared to comply with contract requirements.on Floor Beam Wing Diaphragm FB012-012.

The QA Inspector randomly observed ZPMC welder Hong Shuili ID 048815, utilizing the FCAW Process in the 2G (Horizontal Groove) Position with ZPMC WPS WPS-B-T-2232-TC-U4b-F, to weld the 30 mm thick web plate in the slot in Flange X7J on Floor Beam Wing Diaphragm FB010-018 at Complete Joint Penetration (CJP) WJ 043.

WELDING INSPECTION REPORT

(Continued Page 2 of 3)

The QA Inspector randomly observed ZPMC QC under the supervision of ZPMC CWI Hu Wei Qing, monitoring weld parameters. The weld parameters appeared to comply with contract requirements.

The QA Inspector randomly observed ZPMC Non-Destructive Testing (NDT) Technician Sun Yi, utilizing the Ultrasonic Testing (UT) Method to examine the CJP WJ's attaching the 30 mm thick web plates in the slots in the X7 Flanges on Floor Beam Wing Diaphragms FB010-016-45, FB012-019-045 and FB016-025-043. Mr. Sun rejected WJ FB010-016-015. FB012-019-045 and FB016-025-043 were accepted by Mr. Sun. The attached photograph provides additional detail.

The QA Inspector randomly observed ZPMC welder Wang Qing Bo ID 068501, utilizing the FCAW Process with a tracker in the 2F (Horizontal Fillet) Position with ZPMC WPS WPS-B-T-2132-3, to weld 20 mm thick I-Stiffeners to Floor Beam Wing Diaphragm FB012-018 at WJ 013. The QA Inspector randomly observed ZPMC QC under the supervision of ZPMC CWI Hu Wei Qing, monitoring weld parameters. The weld parameters appeared to comply with contract requirements.

OBG Sub-Assembly Bay 8:

The QA Inspector randomly observed ZPMC welders ID Numbers 045246/051324 (WJ 5) and 037997/045268 (WJ 6), utilizing the SMAW Process in the 2G (Horizontal Groove) Position with ZPMC WPS WPS-B-T-3312-4, to weld Web Plate p238 to 18M (W) Upper Tower Diaphragm SA248 (W) at WJ NSD1-SA311B/B-5/6. The QA Inspector randomly observed ZPMC QC under the supervision of ZPMC CWI Liu Hua Jie, monitoring weld parameters. The weld parameters appeared to comply with contract requirements.

The QA Inspector randomly observed ZPMC welders Zhou Bin ID 067947 (WJ's 5A/6B) and Gao Dong Liang ID 048714 (WJ 9A)), utilizing the FCAW Process in the 3G (Vertical Groove) Position with ZPMC WPS WPS-B-T-2233-B-U3-F, to weld 68M (N) Tower Diaphragm Flange Plate Assembly sections piece marks SA267/p1082 at WJ NSD1-SA244A/B-5A, NSD1-SA244A/B-6B and NSD1-SA244-9A. The QA Inspector randomly observed ZPMC QC under the supervision of ZPMC CWI Liu Hua Jie, monitoring weld parameters. The weld parameters appeared to comply with contract requirements. The attached photograph provides additional detail.

The QA Inspector randomly observed ZPMC welder Rao Wei ID 049972, utilizing the SMAW Process in the 2F (Horizontal Fillet) Position with ZPMC WPS WPS-B-T-4112-4, to tack weld Flange Plate Assembly SA412 to 65M (E) Upper Tower Diaphragm SA414 (E) at WJ ESD1-SA414A/B-2. The QA Inspector randomly observed ZPMC QC under the supervision of ZPMC CWI Liu Hua Jie, monitoring weld parameters. The weld parameters appeared to comply with contract requirements.

WELDING INSPECTION REPORT

(Continued Page 3 of 3)



Summary of Conversations:

There were no relevant conversations.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Josh Ishibashi 13764716411, who represents the Office of Structural Materials for your project.

Inspected By: Franco,Charlie

Quality Assurance Inspector

Reviewed By: Wright,Mark

QA Reviewer